



Wiley Rein & Fielding LLP

1776 K STREET NW
WASHINGTON, DC 20006
PHONE 202.719.7000
FAX 202.719.7049

Virginia Office
7925 JONES BRANCH DRIVE
SUITE 6200
McLEAN, VA 22102
PHONE 703.905.2800
FAX 703.905.2820

www.wrf.com

June 7, 2004

Peter D. Shields
202.719.3249
pshields@wrf.com

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Ex Parte* Presentation in IB Docket No. 02-364

Dear Ms. Dortch:

Iridium Satellite, LLC ("Iridium") hereby submits its response to Globalstar's June 3, 2004 *ex parte* filing.¹ Globalstar's *ex parte* letter, as with its June 1, 2004 *ex parte* letter, employs a continuing pattern of vague generalization and unsupported innuendo regarding its claim that aeronautical services cannot be provided below 1616 MHz. As detailed below, Globalstar can in fact provide aviation services below 1616 MHz. In any event, none of Globalstar's filings address the Iridium proposed band plan which would provide Globalstar shared access to 2.25 MHz of L-band spectrum *above* 1616 MHz.²

Iridium addresses each of the issues raised by Globalstar herein and demonstrates that, for the following reasons, Globalstar's alleged limitations are not founded in either a sound reading of the rules or sound engineering principles:

¹ On June 3, 2004 the Commission issued a Public Notice announcing that the instant matter had been placed on the Sunshine Agenda for the Commission's June 10, 2003 Open Meeting. *Commission Meeting Agenda*, Public Notice (June 3, 2004). This notice closed the period in which parties are allowed to submit *ex parte* presentations under Section 1.1203 of the Commission's rules, 47 C.F.R. §1.1203. Iridium, however, is filing this response at the specific request of Commissioner Abernathy's office and, therefore, the filing is consistent with the Commission's Sunshine Period rules.

² Even assuming, *arguendo*, that Globalstar's aeronautical claims are correct, Iridium's proposed rebalancing provides sufficient spectrum for Globalstar in a manner that promotes efficient use of the spectrum and accommodates the needs of both Globalstar and Iridium. (See Attachment 1).

Ms. Marlene Dortch

June 7, 2004

Page 2

Question 1: “Are there FAA/RTCA regulations that require aviation services to operate above 1616 MHz?” During Iridium’s discussion with the Commission, the Commission posed this question.

Answer 1: Iridium again emphatically states that there are no such requirements that would render Globalstar unable to provide these services. Moreover, Iridium notes that Globalstar has not identified any documentation stating such a requirement.

Rather than respond to the above question, Globalstar has elected to address another question, specifically: “Do the FAA/RTCA restrictions apply at 1616 MHz, or at 1613.8 MHz, or somewhere else?”

In Globalstar’s response to this broader and unfocused inquiry, it failed to appropriately acknowledge the clearly stated emission levels and frequency boundaries. For example, Globalstar has identified the Maximum Total Transceiver Power recommendations from RTCA/DO-262 as its basis for stating that it must use frequencies above 1616 MHz for aeronautical enroute station (AES) services. The maximum carrier levels provided in Paragraph 2.2.3.1.2.1.3 use a frequency of 1614 MHz as a dividing line for more stringent power levels, *not* 1616 MHz. Hence any objective analysis of this section would indicate a demarcation at 1614 MHz, not 1616 MHz. Thus, Globalstar has not shown how DO-262 limits its AES services to frequencies above 1616 MHz.

Furthermore, Globalstar has made no mention of the fact that in AES applications, transceiver power levels can be substantially reduced and still contain adequate link margin. Certainly, Globalstar AES antennae will have clear, line-of-sight uplink paths to the satellite constellation, which is not necessarily the case for its terrestrial user terminals. Additionally, Globalstar notes that the interference level recommendations provided in RTCA/DO-228 are the limiting factors for its AES operations. However, the out-of-band rejection recommendations in DO-228 are operational performance standards for GNSS antenna systems and place absolutely *no restrictions* on AES systems. Moreover, the GPS antenna system rejection recommendations identified in Figure 2-2 of DO-228 indicate that there is only a 2 dB/MHz slope in the Big LEO band. Since the resulting rejection recommendation at 1616 MHz is only 4 dB more stringent than at 1614

Ms. Marlene Dortch

June 7, 2004

Page 3

MHz, the impact of operating an external transmitter at 1614 or 1616 MHz is not significantly changed. *Again, there is not any firm boundary distinction at 1616 MHz.*

Regardless of any interpretation of the above points and arguments, *Iridium has proposed that the 1616-1618.25 MHz band be shared providing equal access to both Globalstar and Iridium.* Iridium's sharing proposal provides Globalstar with 4.5 MHz for its services (2.25 MHz at 1.6 GHz paired with 2.25 MHz at 2.4 GHz). Clearly, the STA experience has conclusively demonstrated that Iridium operations within the same spectrum as Globalstar do not create any harmful interference to Globalstar. Globalstar conceded as much when, reporting on Iridium's STA use of Channels 8 and 9, it stated "[t]he good news for Globalstar is that we have not experienced harmful interference into our satellites."³ It also is important to note that Iridium was using this shared spectrum heavily at the time it was being used by Globalstar within the same geographic region.

Question 2: Why does Globalstar need two channels for aviation communication needs?

Answer 2: Globalstar does not need two channels for these services. Globalstar has provided inconsistent and incomplete responses on this issue.

First, Globalstar's June 3, 2004 *ex parte* claims that Iridium misstates that Globalstar only has potential services. Globalstar's confusing language about "actively marketing" and "demonstrations and trials" suggests potential, rather than existing service.⁴ And nowhere else in its answer to Question 2 does Globalstar address its alleged need for two channels for aviation services.

³ Letter from William F. Adler, Globalstar, L.P., to Thomas S. Tycz, Chief, Satellite Division, IB, FCC, Attachment 2, page 1 (May 1, 2003) ("Globalstar Opposition").

⁴ Globalstar's own May 28, 2004 *ex parte* filing states that, "Globalstar is actively marketing these [aviation] products to the aviation industry, and is in discussions with domestic and international airline carriers. Demonstrations and trials are now in progress."

Ms. Marlene Dortch
June 7, 2004
Page 4

Second, Globalstar's claim is inconsistent with Globalstar's previous statements. The percentages provided in the June 3, 2004 *ex parte* are meaningless without stating an initial subscriber level. Moreover, the actual minute usage levels are the appropriate measure of system utilization. If in fact Globalstar has rolled out this service, Iridium suspects that the *current* aviation usage level within this 5 MHz of spectrum is an extremely low percentage of system capacity. Globalstar has provided no data to support why 5 MHz of bandwidth (2.5 MHz at 1.6 GHz and 2.5 MHz at 2.4 GHz) is needed to support the traffic of one of its niche markets. In contrast, Iridium provides all of its services to all markets in slightly more than 6 MHz of spectrum (including the STA spectrum) – only slightly more than Globalstar seeks for one niche service.

Question 3: If GLONASS is moving down in frequency range, as appears to be the case, why does that not open up additional spectrum now not usable due to GLONASS protection needs?

Answer 3: GLONASS' moving down in frequency range has opened up additional spectrum for Globalstar's use. Iridium also stands behind its position on this issue. Iridium reiterates that GLONASS will have moved a total of 10 MHz by 2005 and, therefore, should not be a material issue for Globalstar. Indeed, in recognition of this reality, Globalstar has not even designed its system to protect GLONASS in anticipation of this move—a move of which Globalstar had full knowledge and notice.

Iridium hopes that this information will prove helpful to the Commission in its deliberations. Pursuant to Section 1.1206(b)(2) of the Commission's rules, 47 C.F.R. §1.1206(b)(2) (*incorporating* 47 C.F.R. §1.49), a copy of this letter and the attached document are being filed electronically for inclusion in the above-noted docket. If any further questions should arise, please do not hesitate to contact the undersigned.

Ms. Marlene Dortch
June 7, 2004
Page 5

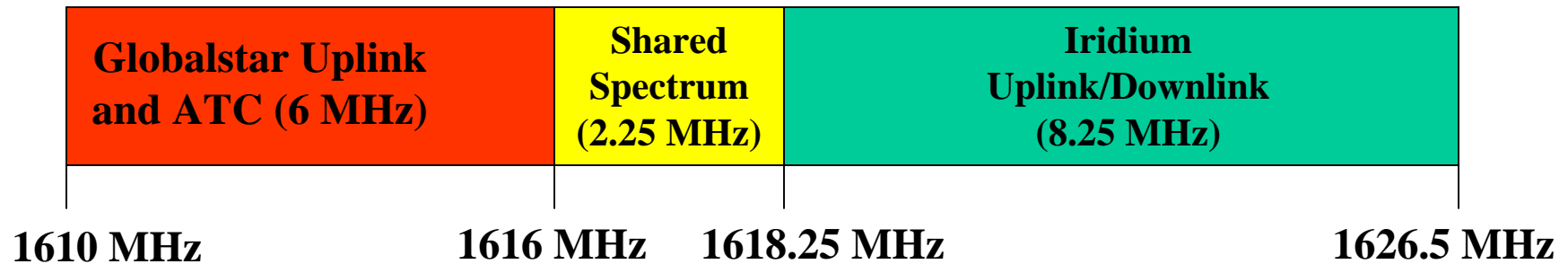
Sincerely,

/s/ Peter D. Shields
Peter D. Shields

Attachment

cc: Rick Engelman
Sheryl Wilkerson
Jennifer Manner
Stacy Fuller
Sam Feder
Paul Margie
Barry Ohlson
Breck Blalock

1.6 GHz Band



2.4 GHz Band

